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EXAMINER

FLETCHER III, WILLIAM P

ART UNIT	PAPER NUMBER
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1762

DATE MAILED: 06/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/828,308

Applicant(s)

HOOKER, MICHAEL A.

Examiner

William P. Fletcher III

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 06 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-61 is/are pending in the application.
- 4a) Of the above claim(s) 23-37 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 and 38-61 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

*Detailed Office Action*

**I. Restriction**

5

Restriction to one of the following inventions is required under 35 U.S.C. § 121:

A. Claims 1-22 and 38-61, drawn to a method of coating a substrate,  
classified in class 427, subclass 256.

B. Claims 23-37, drawn to a coated substrate, classified in class 428, subclass  
10 195.

The inventions are distinct, each from the other because of the following reasons:

Inventions A and B are related as process of making and product made. The inventions  
are distinct if either or both of the following can be shown: (1) that the process as claimed can be  
used to make other and materially different product or (2) that the product as claimed can be  
15 made by another and materially different process (MPEP § 806.05(f)). In the instant case, the  
product as claimed can be made by another and materially different process: printing a uniform  
layer of cured material on the substrate and, thereafter, removing selected portions of the cured  
coating to reveal the substrate beneath.

Because these inventions are distinct for the reasons given above and have acquired a  
20 separate status in the art as shown by their different classification, restriction for examination  
purposes as indicated is proper.

curing the plurality of dots to form the coating [abstract; c. 3, l. 35 – c. 4, l. 16; c. 4, ll. 55 – 65; c. 5, ll. 1 – 15; and c. 8, ll. 16 - 26]. The substrate is a flexible stretch fabric, preferably spandex [c. 4, ll. 55-65]. Since it is clear that the stretch fabric of Crawley retains its stretch properties after coating of the dots, it is the examiner's position that flexibility is permitted without damage to  
5 the dots.

With respect to claim 2, Crawley teaches that the dots may be screen-printed onto the substrate [c. 4, ll. 12-15].

10 With respect to claim 4, Crawley teaches that the pattern of dots is random [c. 7, ll. 2-34].

With respect to claim 7, Crawley teaches that the pattern of dots may be heat-cured [c. 8, ll. 18].

15 With respect to claims 20-22, Crawley teaches that the dots cover about 20-50% of the substrate [c. 7, ll. 12-14].

#### **V. Rejections under 35 U.S.C. § 103**

20 The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at

the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- 5     **4. Claim 2 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Knapp (US 4,704,017), as applied to claim 1 above, in further view of Onda et al. (US 5,244,470).**

Knapp's teaching is detailed above. Although a specific example of pad printing is taught, the dots "may be deposited...in any manner" [c. 3, ll. 23-26].

10     Knapp does not explicitly teach that the dots are applied by screen printing.

Onda teaches a method in which a colorant is applied to the surface of a hydrophilic (soft) contact lens by screen printing [c. 3, l. 54 – c. 4, l. 11].

Since Knapp teaches that any method may be used to print the colored dots on the soft contact lens substrate, one of ordinary skill would have looked to the prior art for methods of  
15     applying colorant patterns to the surfaces of soft contact lenses. Since Onda teaches a method of doing so by screen printing, it would have been obvious to one of ordinary skill in the art to modify the method of Knapp so as to apply the colored dots by screen printing, as taught by Onda. One of ordinary skill in the art would have been motivated to do so by the desire and expectation of similar results: successfully coating the dots on the substrate.

20

- 5. Claim 3 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Knapp (US 4,704,017) as applied to claim 1 above, and further in view of Wingler et al. (US 4,533,397).**

Knapp's teaching is detailed above. As noted, the lens substrate may be made of hydrophilic material.

Knapp does not explicitly teach that the substrate is a polyester-polycarbonate alloy.

Wingler teaches a contact lens substrate manufactured from a polyester-polycarbonate alloy [abstract; c. 1, ll. 26-39; c. 2, l. 42 – c. 3, l. 2; c. 7, l. 51 – c. 10, l. 6].

Since Knapp teaches that the lens substrate may be made of hydrophilic material, but is not more specific, one of ordinary skill would have looked to the prior art for suitable hydrophilic lens substrates. Since Wingler teaches a hydrophilic lens of a polyester-polycarbonate material, it would have been obvious to one of ordinary skill in the art to modify the method of Knapp so as to utilize a polyester-polycarbonate alloy lens substrate, as taught by Wingler. One of ordinary skill in the art would have been motivated to do so by the desire and expectation of successfully providing a suitable lens substrate as well as a the expectation of forming a lens of increased comfort and resistance to infection [c. 1, l. 57 – c. 2, l. 2].

15     **6.     Claim 6 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Knapp (US 4,704,017) as applied to claim 1 above, and further in view of Rawlings et al. (US 5,034,166).**

Knapp's teaching is detailed above. As noted, the dots may be cured by heating.

20     Knapp does not explicitly state that the dots may be cured by UV light.

Rawlings teaches the application of colorant dots to a contact lens in which the colorant is UV cured [c. 6, l. 10-11 and c. 10, ll. 49-52].

It would have been obvious to one of ordinary skill in the art to modify the method of Knapp so as to utilize as the colorant, a UV curable colorant, and curing the colorant dots by UV radiation as suggested by Rawlings. One of ordinary skill in the art would have been motivated to do so by the desire and expectation of successfully printing the colorant dots on the lens  
5 substrate.

**7. Claims 38, 41-43, 46-49, 52, 53, and 56-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knapp (US 4,704,017) in view of Powell et al. (US 4,611,039).**

10 With respect to claim 38, the teaching of Knapp is detailed above.

Knapp does not explicitly teach the active method steps of forming the soft contact lens substrate to a desired shape and flexing the colorant coating while forming.

As noted above, Powell teaches that soft contact lenses are flexible and conform to the shape and contour of the corneal surface of the eye during normal wear [c. 1, ll. 22-32].

15 Since Knapp does not teach, either directly or impliedly, that the dots prevent the normal use of the soft contact lens, it would have been obvious to one of ordinary skill in the art to modify the method of Knapp so as to wear the contact lens, thereby flexing and shaping the lens to conform to the contour of the corneal surface of the wearer. One of ordinary skill in the art would have been motivated to do so by the desire and expectation of changing the color of the  
20 wearer's eye, as suggested by Knapp.

With respect to claims 41 and 42, the pattern of dots may be irregular which, in the examiner's view, reads on random (i.e., stochastic), and the substrate may be repeatedly printed with one or more patterns of dots [c. 2, ll. 37-38 and c. 4, ll. 3-9].

5 With respect to claim 52, curing the dots includes heating [c. 4, ll. 15-16].

With respect to claim 43, the cured dots may be translucent [c. 2, ll. 63-66 and c. 3, ll. 49-61]. "Translucent" is synonymous with "clear" and "transparent" and, consequently, anticipates "substantially transparent."

10

With respect to claim 46, the substrate is a transparent contact lens which is, inherently, "light-transmitting" [c. 3, ll. 13-15].

With respect to claims 47-49, as noted above, the substrate may be repeatedly printed  
15 with one or more patterns of dots. All printing is performed on the same, convex front surface of the lens [c. 2, ll. 15-36].

With respect to claim 53, it is well-known that process steps during the production of a contact lens are commonly carried-out in a mold, including casting, shaping, and forming  
20 thereof. Consequently, it would have been obvious to one of ordinary skill in the art to have formed the contact lens substrate in a mold.



With respect to claims 56-58, Knapp explicitly teaches a dot size of about 0.1 mm = 100 microns [c. 2, l. 52]. It is the examiner's position that, absent evidence to the contrary, that a teaching of "about 100 microns" reads on the claimed range of "about 90 microns."

5 With respect to claims 59-61, the printed portion of the substrate is the iris portion, at least about 20 % of which is covered with the dots [c. 4, claims 2-4].

10 **8. Claim 39 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Knapp (US 4,704,017) in view of Powell et al. (US 4,611,039), as applied to claim 38 above, in further view of Onda et al. (US 5,244,470).**

Knapp and Powell are detailed above. Although a specific example of pad printing is taught, the dots "may be deposited...in any manner" [c. 3, ll. 23-26].

Neither Knapp nor Powell explicitly teach that the dots are applied by screen printing.

15 Onda teaches a method in which a colorant is applied to the surface of a hydrophilic (soft) contact lens by screen printing [c. 3, l. 54 – c. 4, l. 11].

Since Knapp teaches that any method may be used to print the colored dots on the soft contact lens substrate, one of ordinary skill would have looked to the prior art for methods of applying colorant patterns to the surfaces of soft contact lenses. Since Onda teaches a method of  
20 doing so by screen printing, it would have been obvious to one of ordinary skill in the art to modify the method of Knapp so as to apply the colored dots by screen printing, as taught by

Onda. One of ordinary skill in the art would have been motivated to do so by the desire and expectation of similar results: successfully coating the dots on the substrate.

9. **Claims 44 and 45 are rejected under 35 U.S.C. § 103(a) as being unpatentable over**  
5 **Knapp (US 4,704,017) in view of Powell et al. (US 4,611,039), as applied to claim 38 above,**  
**and further in view of Wingler et al. (US 4,533,397).**

Knapp and Powell are detailed above. As noted, the lens substrate may be made of hydrophilic material.

10 Neither Knapp nor Powell explicitly teach that the substrate is a polyester-polycarbonate alloy.

Wingler teaches a contact lens substrate manufactured from a polyester-polycarbonate alloy [abstract; c. 1, ll. 26-39; c. 2, l. 42 – c. 3, l. 2; c. 7, l. 51 – c. 10, l. 6].

Since Knapp teaches that the lens substrate may be made of hydrophilic material, but is  
15 not more specific, one of ordinary skill would have looked to the prior art for suitable hydrophilic lens substrates. Since Wingler teaches a hydrophilic lens of a polyester-polycarbonate material, it would have been obvious to one of ordinary skill in the art to modify the method of Knapp so as to utilize a polyester-polycarbonate alloy lens substrate, as taught by Wingler. One of ordinary skill in the art would have been motivated to do so by the desire and  
20 expectation of successfully providing a suitable lens substrate as well as a the expectation of forming a lens of increased comfort and resistance to infection [c. 1, l. 57 – c. 2, l. 2].

**10. Claim 51 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Knapp (US 4,704,017) in view of Powell et al. (US 4,611,039), as applied to claim 38 above, and further in view of Rawlings et al. (US 5,034,166).**

5 Knapp in view of Powell is detailed above. As noted, the dots may be cured by heating.

Neither Knapp nor Powell explicitly state that the dots may be cured by UV light.

Rawlings teaches the application of colorant dots to a contact lens in which the colorant is UV cured [c. 6, l. 10-11 and c. 10, ll. 49-52].

10 It would have been obvious to one of ordinary skill in the art to modify the method of Knapp so as to utilize as the colorant, a UV curable colorant, and curing the colorant dots by UV radiation as suggested by Rawlings. One of ordinary skill in the art would have been motivated to do so by the desire and expectation of successfully printing the colorant dots on the lens substrate.

15 **11. Claims 9, 11-14, and 17-19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Crawley et al. (US 5,948,707).**

Crawley is detailed above. It is noted that the coated substrate of Crawley may be used in the production of various garments such as socks, gloves, and gowns — particularly in medical  
20 applications [c. 5, top].

Crawley does not explicitly teach the limitations of applicant's claims 9 and 11-14.

It is the examiner's position that garments, such as those taught by Crawley, are routinely printed with designs and/or indicia. Said printing may be either on the inside or the outside thereof.

Consequently, it would have been obvious to one of ordinary skill in the art to modify the process of Crawley so as to print designs and/or indicia either on the same or opposite side as the dots. One of ordinary skill in the art would have done so as part of the routine finishing of the fabric of Crawley.

Further, Crawley does not teach the limitations of applicant's claims 17-19 regarding the average size of the dots.

It is the examiner's position that the size of the dots is a result-effective variable effecting the non-slip properties of the coating of Crawley: larger coverage giving greater non-slip properties.

Absent clear and convincing evidence demonstrating the criticality of the claimed coverage, it would have been obvious to one of ordinary skill in the art to optimize such a result-effective variable by routine experimentation.

**12. Claims 38-40, 42, 44, 47-50, 52, and 59-61 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Crawley et al. (US 5,948,707).**

Crawley is detailed above. As noted, Crawley teaches a flexible stretch fabric and that the coated fabric is used to produce garments such a socks and gloves.

Crawley does not explicitly state that the fabric is formed and flexed while forming. It is clear, however, that garments such as socks and gloves are flexed to conform to the wearer during routine use.

It would have been obvious to one of ordinary skill in the art to modify the method of  
5 Crawley so as to form a garment from the fabric and to wear this garment, thereby forming and flexing the garment to conform to the wearer.

With respect to claim 39, Crawley teaches that the dots may be screen-printed onto the substrate [c. 4, ll. 12-15].

10

With respect to claim 42, Crawley teaches that the pattern of dots is random [c. 7, ll. 2-34].

15

With respect to claim 52, Crawley teaches that the pattern of dots may be heat-cured [c. 8, ll. 18].

With respect to claims 59-61, Crawley teaches that the dots cover about 20-50% of the substrate [c. 7, ll. 12-14].

20

With respect to claims 47-50 and 56-58 Crawley is detailed above. It is noted that the coated substrate of Crawley may be used in the production of various garments such as socks, gloves, and gowns — particularly in medical applications [c. 5, top].

Crawley does not explicitly teach the limitations of applicant's claims 47-50.

It is the examiner's position that garments, such as those taught by Crawley, are routinely printed with designs and/or indicia. Said printing may be either on the inside or the outside thereof.

5           Consequently, it would have been obvious to one of ordinary skill in the art to modify the process of Crawley so as to print designs and/or indicia either on the same or opposite side as the dots. One of ordinary skill in the art would have done so as part of the routine finishing of the fabric of Crawley.

          Further, Crawley does not teach the limitations of applicant's claims 56-58 regarding the  
10   average size of the dots.

It is the examiner's position that the size of the dots is a result-effective variable effecting the non-slip properties of the coating of Crawley: larger coverage giving greater non-slip properties.

          Absent clear and convincing evidence demonstrating the criticality of the claimed  
15   coverage, it would have been obvious to one of ordinary skill in the art to optimize such a result-effective variable by routine experimentation.

## **VI. Allowable Subject Matter**

20           Claims 15, 16, 54, and 55 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:  
The prior art neither teaches nor suggests soft or partial curing to generate stipple on the plurality of dots.

5   **VII. Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William P. Fletcher III whose telephone number is (703) 308-7956. The examiner can normally be reached on Monday through Friday, 9 AM to 5 PM.

10       If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive P. Beck can be reached on (703) 308-2333. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding  
15   should be directed to the receptionist whose telephone number is (703) 308-0661.

William P. Fletcher III  
Examiner  
Art Unit 1762

**WPT**  
June 24, 2003

  
**SHRIVE P. BECK**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 1700**